

CLAIMS

What is claimed is:

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1. A communication mechanism for transferring information between different processes, said communication mechanism comprising:

at least one interface for enabling the transfer of information via a data storage system
 2. The communication mechanism of claim 1, said communication mechanism further comprising:

a plurality of computer system calls available to a user of said processes to establish a connection between said processes, and begin said transfer of information.
 3. The communication mechanism of claim 2, wherein said processes run on different host processors and each processor is connected to said data storage system.
 4. The communication mechanism of claim 3, in which said interface runs within each of said plurality of processes.

5. The communication of claim 1, in which said interface communicates with a protocol in communication with said data storage system.

6. The communication mechanism of claim 5, wherein said interface is a socket interface.

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7. The communication mechanism of claim 6, wherein said socket interface is allocated from said data storage system.

8. The communication mechanism of claim 7, in which said allocation of said socket interface is done by using at least one of said plurality of computer system calls to request said socket interface from said data storage system.

9. The communication mechanism of claim 1, wherein said communication mechanism can be used with processes performing different functions.

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10. In a network having a plurality of computer system calls, said computer system calls available to a user of a first process to begin and facilitate communication with a second process through a data storage system, said computer system calls comprising:

a first call within said process to obtain a communication mechanism from said data storage system, wherein said first call selects a transfer means and a desired type of communication;

a second call within said first process to create a local address for said first process to use with said communication mechanism; and

a third call within said first process to create a connection between said first process and said second process, wherein said third call connects said first process to said second process.

11. The plurality of computer system calls of claim 10, wherein said plurality of computer system calls includes calls to use said communication mechanism to transfer information between said first and said second process through said data storage system.

12. The plurality of computer system call of claim 11, further comprising:

a fourth call in which either of said first process is an initiating process and sends information to said second process through said data storage system.

13. The plurality of computer system calls of claim 12, further comprising:

a fifth call in which said second receives information from said first processes.

14. The plurality of computer system calls of claim 13, further comprising:
a sixth call to terminate said connection between said first and said second processes.

15. The plurality of computer system calls of claim 14, wherein said first and said second processes each reside on a different host processor, and each said host processor is connected to said data storage system.

16. A method for transferring information between at least first and second processes via a data storage system, the method comprising the steps of:
creating a communication mechanism;
using said communication mechanism to create a connection between said first process and said second process; and
transferring information from said first process via said data storage system to said second process.

17. The method of claim 16, wherein said first and said second processes reside on different host processors, and said host processors are connected to said data storage system.

18. The method of claim 17 including a termination step for enabling one process to terminate said connection to said second process.

B3 19. The method of claim 18 further comprising the step of:
allocating, from said data storage system, said communication mechanism.

Sub-A4 B3 20. A system comprising :
a plurality of host processors, wherein each host processor includes a plurality of processes resident of each of said host processors;
a local storage area resident in each of said plurality of host processors;
a data storage system separate from said plurality of host processors and connected to each of said plurality of host processors; and
a communication mechanism resident within each one of said plurality of processes, in which information stored in said local storage area is transferred by one of said communication mechanisms via said data storage system to said communication mechanism resident within another one of said plurality of processes.

B3 21. The system of claim 20, said communication mechanism including an interface that communicates with said plurality of processes, wherein said plurality of processes have different functions.

22. The system of claim 21, wherein said communication mechanism is allocated individually to each of said plurality of processes by said data storage system when said interface requests said data storage system to allocate said communication to a said process.

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23. The system of claim 22, wherein said data storage system further comprises a control block table containing a plurality of available communication mechanisms, said control block table allocating said communications mechanisms upon a request from one of said processes.

24. The system of claim 23, said data storage system having a plurality of storage devices, said control block table being stored on at least one of said plurality of storage devices.

25. The system of claim 20, said plurality of host processors having different operating systems.

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26. A data storage system for transferring information from a first process to a second process, each of which is running on a selected one of a plurality of host processors that are connected to said data storage system, said data storage system comprising:

a plurality of storage devices;

a shared storage region to which both of said first and second processes share access;

a control block table implemented in at least one of said plurality of storage devices; and

wherein said control block table allocates a communication mechanism for said first process which said first process uses to establish a connection to said second process through said shared memory storage region.

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